



**CONSOLIDATED TESTING LABORATORIES, INC.**

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Soils and Materials Testing

Geotechnical and Environmental Drilling

Field Inspection

**FOURTH QUARTER 2005  
GROUND WATER MONITORING REPORT**

**FRANK'S STOP AND GO  
610 WEST OLIVE AVENUE  
PORTERVILLE, CALIFORNIA**

**Prepared for:**

**Mr. Ali Rahim  
610 West Olive Avenue  
Porterville, California 93257**

**January 16, 2006**

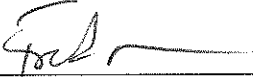
**Project Number: 4451-05**

**Fourth Quarter 2005  
Ground Water Monitoring Report**

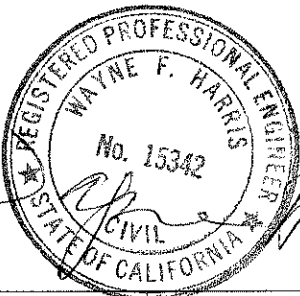
**Frank's Stop and Go  
610 West Olive Avenue  
Porterville, California**

The material and data in this report were prepared under the supervision and direction of the undersigned.

**Consolidated Testing  
Laboratories, Inc.**



Fred A. Mason  
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## 1 INTRODUCTION

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Frank's Stop and Go is owned by Ali and Margarita Rahim, and is located within an area of commercial development on the northwest corner of west Olive Avenue and Villa Street in Porterville, Tulare County, California, hereinafter referred to as the site. The subject building is surrounded by concrete and asphalt pavement used for parking and drive-through access. The site location is described as Tulare County Assessors parcel number 252-293-031, and approximately 0.14 acres in the southwest  $\frac{1}{4}$  of the southwest  $\frac{1}{4}$  of section 26, Township 21 South, Range 27 East, Mount Diablo Base Line and Meridian.

## **2 SITE ENVIRONMENTAL HISTORY**

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Records indicate that the three UST's removed were operated under Tulare County Division of Environmental Health Services (TCDEHS), permit numbers 5327001, 5327002, and 5327003, issued on July 31, 1996. In 1997 the TCDEHS issued an Unauthorized Leak Report.

**November 20, 1997:** Underground Tank Testers performed a leak test on the UST's at the site. Test results indicated no detectable leaks.

**December 28-29, 1998:** The tanks were removed by Franzen-Hill under permit numbers 98-259, 98-260, and 98-261. Soil samples collected by Franzen-Hill during the tank removal revealed gasoline-impacted soil at sampling locations S-2 and S-5.

**November 23, 1999:** CTL drilled preliminary testhole borings B-1 and B-2 to determine the vertical extent of hydrocarbon contamination in the soil and ground water. Soil samples were collected at 5-foot depth intervals starting at 20-feet below ground surface to a maximum depth of 32-feet below ground surface. Fractional to minor concentrations of MTBE were detected in the soil samples collected from both borings but no TPH-gasoline or BTEX constituents were detected. No detectable concentrations of gasoline analytes or MTBE were reported from the water sample collected at 30-feet from B-1. The water sample collected from B-2 exhibited significantly elevated concentrations of gasoline analytes and MTBE.

**December 15, 1999:** The *Phase I Preliminary Site Investigation for Petroleum Fuel Constituents in Soil and Ground Water* was prepared.

**October 20, 2000 and January 12, 2001:** Monitoring wells MW-1, MW-2, and MW-3 were installed. Results for the investigation were incorporated in CTL's well completion report dated May 21, 2001.

**January 15, 2003:** CTL requested the installation of an additional ground water monitoring well MW-5 to further define the lateral extent of the plume of contamination. The TCDEHS approved the installation of MW-5.

**April 22, 2003:** CTL submitted the *Well Completion Report, Ground Water Monitoring Results and Soil Vapor Extraction Pilot Study* to the TCDEHS for review.

**June 16, 2003:** The TCDEHS approved the well completion report and CTL's recommendations to use an electric catalytic oxidizer presented in a report titled *Well Completion Report, Ground Water Monitoring Results and Soil Vapor Extraction Pilot Study for the 2<sup>nd</sup> Quarter – 2003* dated April 22, 2003.

**November 6, 2003:** CTL submitted a *Ground Water Monitoring Report* to the TCDEHS dated October 23, 2003.

**April 7, 2004:** CTL submitted the *Fourth Quarter 2003 Ground Water Monitoring Report* to the TCDEHS dated March 5, 2004.

**July 25, 2004:** CTL submitted the *Second Quarter 2004 Ground Water Monitoring Report* to the TCDEHS dated July 23, 2004.

**August 11, 2004:** TCDEHS concurred with CTL's recommendations to install monitoring well MW-6.

**December 8, 2004:** CTL installed monitoring well MW-6 near the southwest corner of the convenience store building in the sidewalk.

**January 17, 2005:** CTL submitted the *Fourth Quarter 2004 Ground Water Monitoring Report* to the TCDEHS dated January 17, 2005.

**February 1, 2005:** TCDEHS reviewed and concurred with the January 17, 2005 quarterly report. Advise the county concerning progress of the thermal/catalytic oxidizer installation. Continue quarterly ground water monitoring.

**May 27, 2005:** In correspondence from CTL to the TCDEHS, notification was made that the Soil Vapor Extraction (SVE) system was planned to be changed to a Granular

Activated Carbon Adsorption (GAC) method. The remediation site was reconstructed during June and July of 2005 allowing for the operation of the GAC system.

**July 19, 2005:** The San Joaquin Valley Air Pollution Control District issued a modification to the existing Authority to Construct allowing the change in the SVE system to GAC.

**September 15, 2005:** The TCDEHS reviewed the second quarter ground water monitoring report dated September 8, 2005. The report was accepted and the TCDEHS concurred with the conclusions and recommendations including a change in the monitoring schedule to semi-annual after the third quarter 2005 event.

**November 9, 17, 2005:** CTL conducted a quarterly ground water monitoring event for the fourth quarter of 2005. After review of the analytical results from the November 9 sampling event, it was determined that a cross contamination situation had existed during the sampling operation. Samples were collected from the same wells on November 17, 2005 and are reported within the fourth quarter 2005 monitoring report.

### **3 ENVIRONMENTAL SETTING**

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#### **3.1 Geography and Geology**

The City of Porterville is located near the southeastern boundary of the Great Valley Geomorphic Province immediately adjacent to the Sierra Nevada Mountain Range. The Great Valley is a geosyncline filled with downwarped sediments tens of thousands of feet deep. The northwest trending Great Valley extends from the San Emigdio Mountains south of Bakersfield, to Red Bluff in the north. To the east, the valley is bound by the Sierra Nevada Mountains and to the west by the Coast Ranges. The Great Valley is approximately 90-miles across at its widest point.

The City of Porterville is situated approximately four-miles west of the Sierra Nevada Mountain Range along the alluvial plains of the Great Valley. Frank's Stop and Go property is situated on an elevated portion of the outwash alluvial fan where the Tule River exits the Sierra Nevada foothills. The elevation at the property is approximately 445-feet above mean sea level; the topography is gently sloping to relatively flat. The surficial materials underlying the asphalt and concrete cover consist of alluvial deposits of moderately consolidated sand, gravel, and occasional horizons of silt and clay.

#### **3.2 Regional and Local Ground Water Conditions**

Ground water occurs under both confined and unconfined conditions in the San Joaquin Valley. The degree of confinement varies widely because of the heterogeneity of the continental deposits. The body of fresh ground water in the San Joaquin Valley is principally contained in unconsolidated continental deposits. These deposits are of Pliocene to Holocene Age (7-million to 11-thousand years before present time) and extend to depths ranging from less than 100 feet to more than 3500 feet. Along the eastern boundary of the valley at shallow depths, the base of fresh ground water occurs in more consolidated marine and continental sedimentary rocks of Tertiary Age (1.8 to 65-million years before present time).

## **4 SCOPE OF WORK**

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The activities associated with the fourth quarter 2005 ground water monitoring program at the site consisted of: 1) Conducting depth to ground water measurements from site monitoring wells (Table 1); 2) Collecting and analyzing ground water samples from the site monitoring wells; 3) Evaluating analytical laboratory data; and 4) Preparing this ground water monitoring report. Sampling for the fourth quarter 2005 monitoring event was conducted on November 9 and 17, 2005.

### **4.1 Soundings**

The depth to ground water in monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 was measured from the top of each wellhead casing. The average depth to ground water was 29.90 feet (Table 1). The average depth declined by 2.31 feet since the September 6, 2005 monitoring event.

### **4.2 Ground Water Occurrence**

The occurrence of ground water beneath the site was assessed from depth to ground water measurements of site ground water monitoring wells obtained on November 9, 2005, prior to purging or sampling any of these wells (Appendix A). Depth to ground water measurements were obtained with the use of a Solinst® interface meter, which is an electronic water level meter that is accurate to the nearest 0.01 of a foot, and is also capable of providing accurate floating petroleum hydrocarbon product level and thickness measurements. Depth to ground water measurement data were converted to ground water elevations based on mean sea level measurements and used to evaluate the occurrence of ground water beneath the site; and to determine the hydraulic gradient, seepage velocity and apparent ground water flow direction beneath the site. The average elevation of ground water beneath the site during the fourth quarter sampling event was 414.75 feet above mean sea level.

### 4.3 Ground Water Sampling

On November 9, 2005, all site monitoring wells were sampled for constituents of concern. Prior to sampling, the monitoring wells were purged of at least three well casing volumes of water before collection of ground water samples. Monitoring wells were purged with a Proactive Low Flow Monsoon® water pump until field parameters consisting of pH, electrical conductivity (EC), temperature, and turbidity had stabilized. The purging pump was cleaned with Tri-sodium phosphate between each well purging. Field notes for purging and sampling of site monitoring wells are presented in Appendix A.

Casing volumes for the monitoring wells were calculated based on the well diameter, well sounding depth, and depth to ground water measurements obtained before purging. After purging, the monitoring wells were sampled from the discharge flow of the purge pump.

The collected samples were placed directly into appropriate sample bottles that were provided by the analytical laboratory. All sample bottles were labeled with the project ID, well number, date, time, and technician's name, and placed in an ice chest cooled with frozen gel packs to maintain the samples at a temperature of approximately 4° C. Following collection, the samples were delivered under chain-of-custody procedures to Castle Analytical Laboratory, which is accredited by the ELAP accreditation program of the California Department of Toxic Substances Control (DTSC).

Minor levels of Xylenes were detected in all samples collected on November 9, 2005, along with Ethylbenzene and Toluene in several wells. These constituents had not been detected in the five previous monitoring events, which lead to the conclusion that cross contamination had occurred. CTL reviewed its procedures and practices of decontamination of the purging and sampling equipment, including the well sounder. No procedural abnormality could be determined that would explain the results of the November 9, 2005 event other than residual contaminants within the purge and sample equipment. This conclusion lead to the re-sampling of the wells by disposable bailer attached to new nylon string for each well sampled.

On November 17, 2005 the site was purged and re-sampled. The samples were labeled and processed under chain of custody procedures as the earlier event samples had been. No depth to ground water measurements were collected. The gradient and ground water flow calculations used within this report are based upon the November 9, 2005 data collected.

#### **4.4 Laboratory Analyses**

The November 9 and 17, 2005 ground water samples were transported to Castle Analytical Laboratory and were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by U.S. Environmental Protection Agency (U. S. EPA) Method 8015B after preparing the samples by U. S. EPA Method 5030; benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tert-butyl ether (MTBE) by U. S. EPA Method 8020 after preparing the samples by U. S. EPA Method 5030 (Appendix A).

As requested by the TCDEHS and towards the closure of the site, the samples collected were analyzed for Fuel Oxygenates including MTBE, DIPE, ETBE, TAME, and TBA and Volatile Halocarbons 1,2-DCA and EDB. US EPA Method 8260 GC/MS was employed for these analyses.

#### **4.5 Field and Laboratory Quality Control**

Analysis of a travel blank and laboratory method blanks, and laboratory spikes were conducted as part of a quality control (QC) program designed to monitor the accuracy and precision of the sample handling and laboratory procedures. The travel blank and laboratory QC results were evaluated to assess the acceptability of analytical data, and are included with the certified analytical reports in Appendix A.

While no fault was found with the laboratory procedures, the condition of CTL's sample equipment was found to be the cause of the cross contamination situation. CTL strives to consistently and diligently decontaminate purge and sample equipment before, between, and after each well and site is sampled.

## 5 FINDINGS

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This section of the report presents the findings of the ground water sampling activities conducted at the site during the current reporting period.

### 5.1 Ground Water Occurrence

Depth to ground water measurements obtained on November 9, 2005 from site monitoring wells were converted to ground water elevations with respect to mean sea level as shown on Table 1. The lowest and highest ground water elevation was measured in monitoring wells MW-5 and MW-3 at 414.35 feet and 415.07 feet, respectively. Ground water elevation data from site monitoring wells were used to construct a ground water level contour map to assess the ground water flow direction and gradient during the current reporting period (Figure 3). Evaluation of the ground water contour map indicates that on November 9, 2005, ground water beneath the site was flowing approximately northwest with an average hydraulic gradient of approximately 0.0053-feet/foot.

The ground water flow velocity was calculated using Darcy's Law:

$$v = Ki/n_e$$

Where:

$v$  = ground water velocity

$K$  = hydraulic conductivity

$i$  = hydraulic gradient

$n_e$  = effective porosity

Using an estimated hydraulic conductivity value of  $1 \times 10^{-4}$  centimeters per second (cm/sec) for the type of water bearing formations found at the site which consist of interbedded layers of silt, sandy silt, and very fine to medium grained silty sand (Fetter, 1980)<sup>1</sup>; a hydraulic gradient of 0.0053-feet/foot obtained from Figure 3, and an effective porosity of 0.15, as suggested by the U. S. EPA for silty material (U. S. EPA, 1986)<sup>2</sup>; a ground water flow velocity of approximately 3.64-ft/yr was calculated for ground water flowing beneath the site. The relatively slow natural movement of ground water beneath the site is due to the hydraulic characteristics of subsurface materials and the very flat ground water gradient observed at the site.

Depth to ground water data obtained from the site has also been used to prepare a composite hydrograph (Figure 5). The hydrograph indicates an overall ground water elevation decline in all monitoring wells since the third quarter 2005 sampling event.

## 5.2 Ground Water Analytical Results

Due to cross contamination of the purge and sample equipment, results of the November 9, 2005 sampling event are presented in Table 2 and Appendix A; however, they are not used to formulate the conclusions or recommendations presented within this report.

Analytical results of ground water samples collected on November 17, 2005, indicate that no constituents of concern were detected in any of the samples collected from MW-1 through MW-6. Copies of the certified analytical report for ground water samples collected from site monitoring wells are presented in Appendix A and summarized in Table 2 and the following tables.

Each sample analyzed for Fuel Oxygenates and Volatile Halocarbons yielded non-detect results and are summarized on Table 4.

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<sup>1</sup> Fetter, C.W. Jr. 1980. *Applied Hydrogeology*, Charles E. Merrill Publishing Co.

<sup>2</sup> U. S. EPA. 1986. *Criteria For Identifying Areas of Vulnerable Hydrogeology Under RCRA, Guidance Manual for Hazardous Waste Land Treatment, Storage and Disposal Facilities*.

Summary of Ground Water Sample Analytical Results  
TPH-G, BTEX, and MTBE  
November 9, 2005

	<b>MTBE by U.S. EPA 8020</b>	<b>Benzene</b>	<b>Toluene</b>	<b>Ethyl- benzene</b>	<b>Total Xylenes</b>	<b>TPH-G</b>
MW-1	ND	ND	0.53	ND	2.1	ND
MW-2	ND	ND	0.52	ND	1.9	ND
MW-3	ND	ND	0.97	0.55	4.0	62
MW-4	ND	ND	ND	ND	1.1	ND
MW-5	ND	ND	ND	ND	1.0	ND
MW-6	ND	ND	ND	ND	1.1	ND

Summary of Ground Water Sample Analytical Results  
TPH-G, BTEX, and MTBE  
November 17, 2005

	<b>MTBE by U.S. EPA 8020</b>	<b>Benzene</b>	<b>Toluene</b>	<b>Ethyl- benzene</b>	<b>Total Xylenes</b>	<b>TPH-G</b>
MW-1	ND	ND	ND	ND	ND	ND
MW-2	ND	ND	ND	ND	ND	ND
MW-3	ND	ND	ND	ND	ND	ND
MW-4	ND	ND	ND	ND	ND	ND
MW-5	ND	ND	ND	ND	ND	ND
MW-6	ND	ND	ND	ND	ND	ND

Notes: MTBE Methyl tert-Butyl Ether  
 ND Not Detected at or above detection limit  
 TPH-G Total Petroleum Hydrocarbon, Gasoline range  
 U. S. EPA United States Environmental Protection Agency  
 Results reported in micrograms per liter (µg/l)

### **5.3 Field and Laboratory Quality Control (QC) Results**

Results of the laboratory quality control evaluation indicate that:

- All analyses and extractions took place within holding time requirements.
- Surrogate sample recoveries were within acceptable limits.
- Field sampling equipment has been replaced due to possible residual contamination.

## 6 CONCLUSIONS

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MTBE, TPH-G, and BTEX were not detected in water samples collected from any of the monitoring wells during the November 17, 2005 sampling event. The average ground water elevation has risen since measurements began in site monitoring wells, despite a decline of 2.31 feet during the last quarter. The average ground water elevation is approximately the same as that measured when ground water monitoring activities began in January 2001. The last detected readings of hydrocarbon contaminants in the site monitoring well samples were recorded during the second quarter of 2004, six quarters previous to this quarterly monitoring event.

Cross contamination was determined to be present during the November 9, 2005 monitoring event and data from the analytical results of those samples were invalid. Based on these results, an additional sampling event was conducted on November 17, 2005. Measures have been taken by CTL to minimize the possibility of cross contamination in the future.

A 1,000 foot radius well survey was conducted by CTL personnel during the fourth quarter, 2005 and submitted to the TCDEHS. An additional sampling event was conducted to collect grab samples for total lead analysis. Results of this analysis will be submitted as an addendum to this report when analytical results are available.

The soil vapor extraction system utilizing granular activated carbon adsorption has been shut down due to the extremely low concentration yielded from the vapor extraction wells.

## **7 RECOMMENDATIONS**

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Based on the analytical results of six consecutive quarters of non-detect readings for hydrocarbon constituents, CTL recommends that "No Further Action" (NFA) with regard to ground water monitoring be conducted on site wells. CTL further recommends that no further action be conducted with regard to any remediation efforts. Upon the TCDEHS response to this report, CTL will propose the abandonment of ground water monitoring wells to county standards and the removal of all soil vapor extraction equipment.

## **LIMITATIONS**

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The services described in this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a fourth party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

The purpose of a geologic/hydrogeologic study is to reasonably characterize existing site conditions based on the geology/hydrogeology of the area. In performing such a study, it is understood that a balance must be struck between a reasonable inquiry into the site conditions and an exhaustive analysis of each conceivable environmental characteristic. The following paragraphs discuss the assumptions and parameters under which such an opinion is rendered.

No investigation is thorough enough to describe all geologic/ hydrogeologic conditions of interest at a given site. If conditions have not been identified during the study, such a finding should not therefore be construed as a guarantee of the absence of such conditions at the site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed.

We are unable to report on or accurately predict events that may change the site conditions after the described services are performed, whether occurring naturally or caused by external forces. We assume no responsibility for conditions we were not authorized to evaluate, or conditions not generally recognized as predictable when services were performed.

Geologic/hydrogeologic conditions may exist at the site that cannot be identified solely by visual observation. Where subsurface exploratory work was performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions at unsampled locations.

## FIGURES

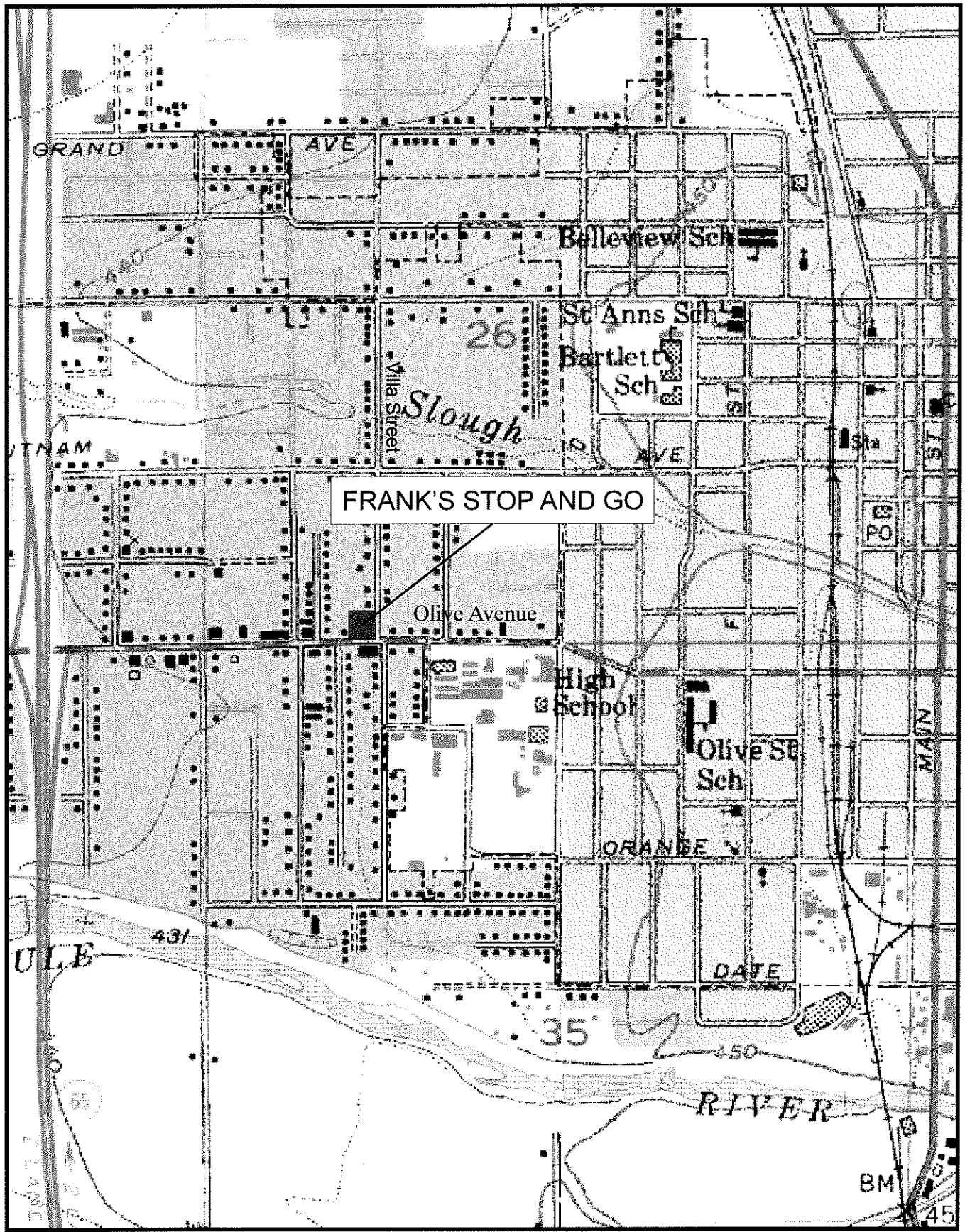
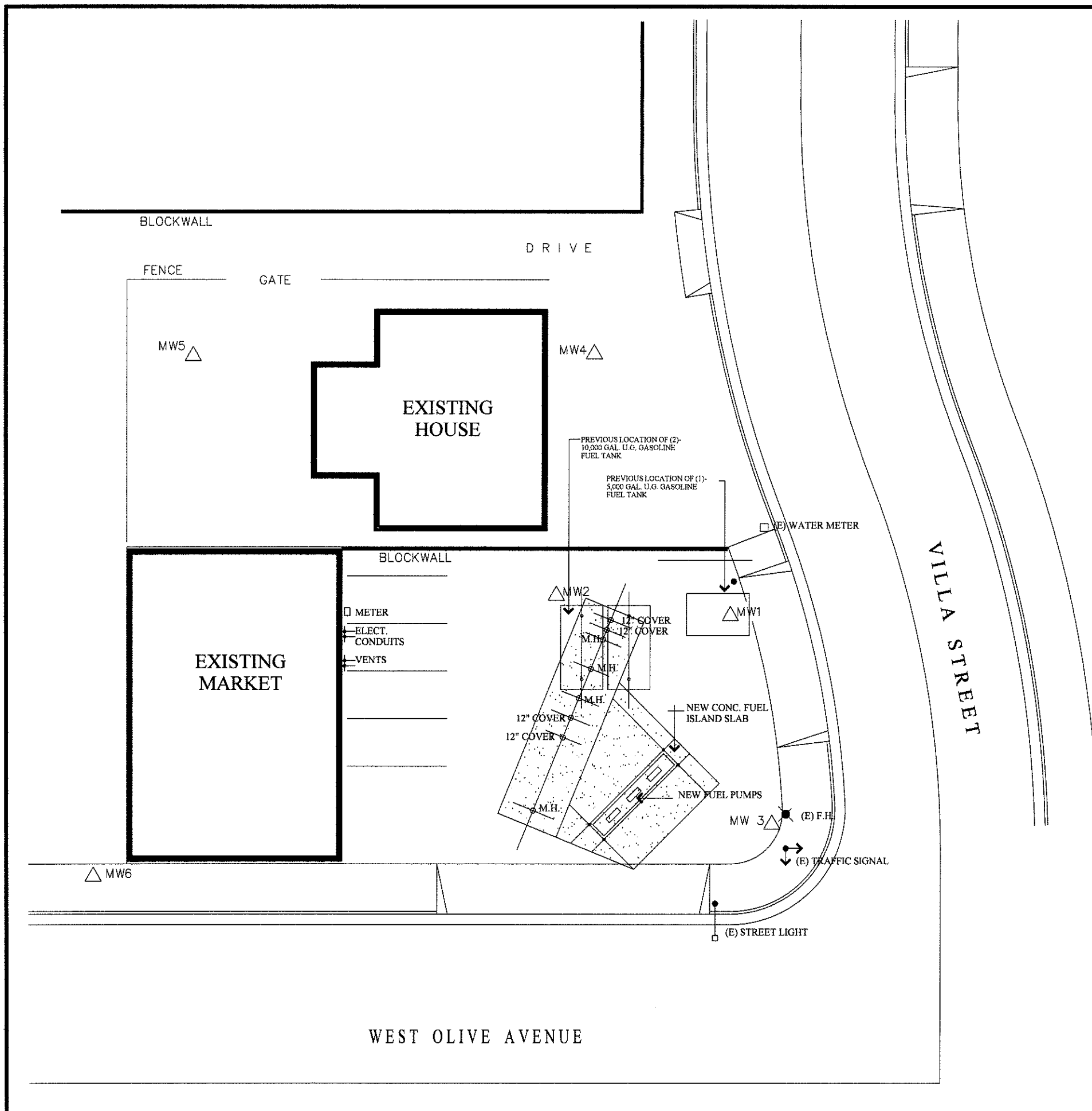


Figure 1. Vicinity Map: Frank's Stop and Go Market, 610 West Olive Avenue, Porterville, California.

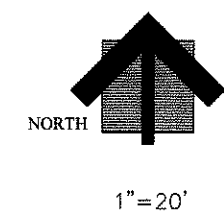


**NOTES**

- MW4, MW5, AND MW6 LOCATED OFFSITE ON ADJACENT PROPERTIES

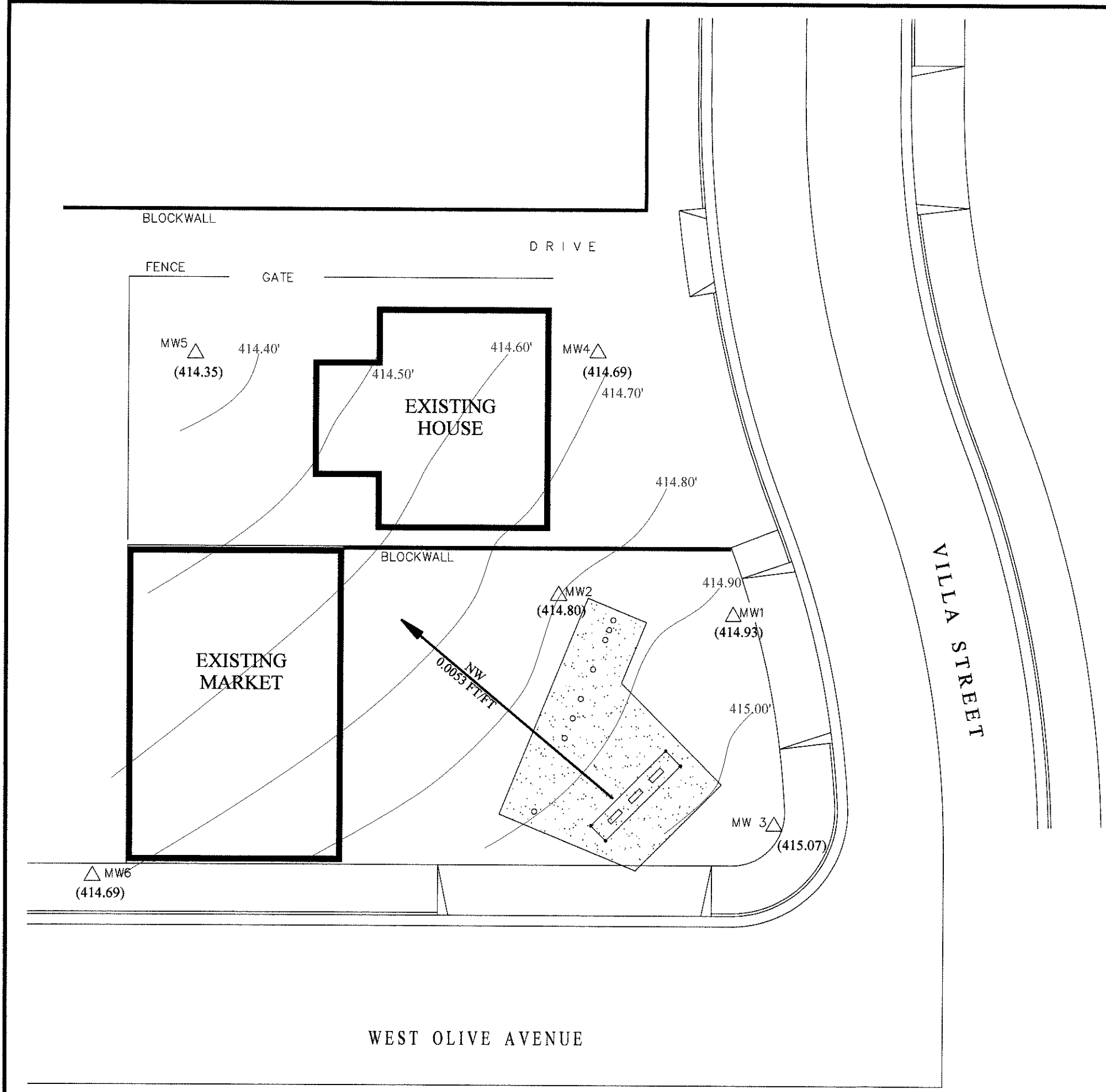
**LEGEND**

MW4△ LOCATION OF GROUNDWATER MONITORING WELLS INSTALLED 10-20-00, 1-12-01, 1-21-03 AND 1-22-03, AND 12-08-04



**SITE MAP**

<b>CTL</b> CONSOLIDATED TESTING LABORATORIES CONSULTING IN GEOLOGY AND ENVIRONMENTAL SCIENCE GROUNDWATER INVESTIGATIONS  603 EAST WORTH AVENUE PORTERVILLE, CALIFORNIA 93257 TELEPHONE: 1.559.781.0571 FACSIMILE: 1.559.782.8389	<b>FRANK'S STOP &amp; GO</b>  610 WEST OLIVE AVENUE  PORTERVILLE, CALIFORNIA 93257	DRAWN BY: JMC
		DATE: 01/10/06
		REVISED:
		SCALE: 1" = 20'
		<b>FIGURE 2</b>



**NOTES**

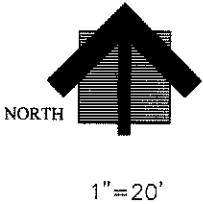
1. MW4, MW5, AND MW6 LOCATED OFFSITE ON ADJACENT PROPERTIES

**LEGEND**

MW4△ LOCATION OF GROUNDWATER MONITORING WELLS INSTALLED 10-20-00, 1-12-01, 1-21-03 AND 1-22-03, AND 12-08-04

414.80' LINES OF EQUAL GROUNDWATER ELEVATION

NW 0.0052 FT/FT GROUNDWATER FLOW DIRECTION AND GRADIENT



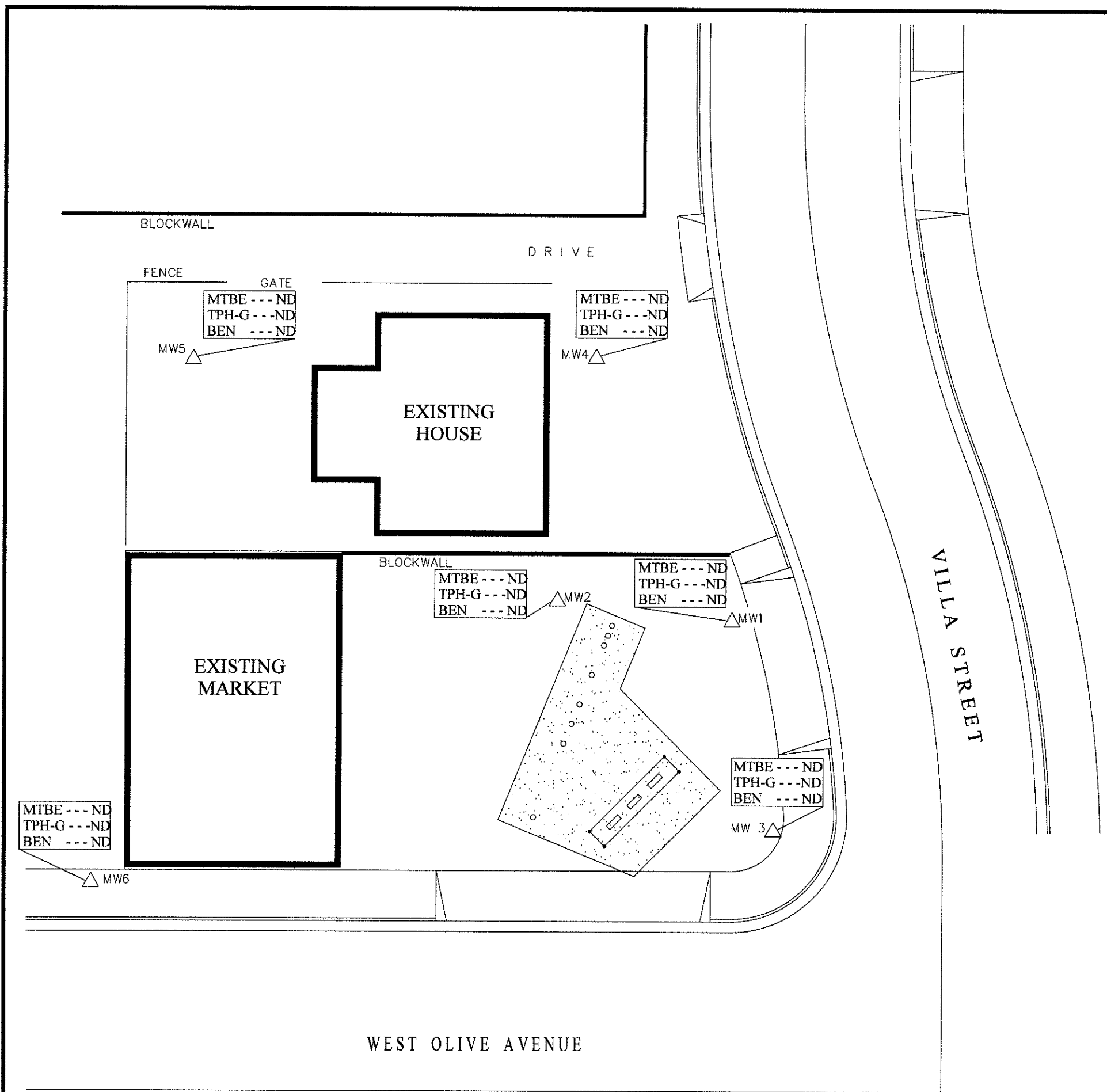
**GROUNDWATER ELEVATION AND CONTOUR MAP**

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**FRANK'S STOP & GO**  
610 WEST OLIVE AVENUE  
PORTERVILLE, CALIFORNIA 93257

DRAWN BY: JMC  
DATE: 01/10/06  
REVISED:  
SCALE: 1" = 20'

**FIGURE 3**

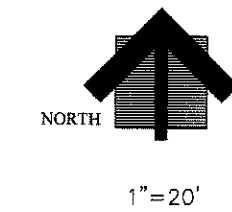


### NOTES

- MW4, MW5, AND MW6 LOCATED OFFSITE ON ADJACENT PROPERTIES

### LEGEND

- MW4 LOCATION OF GROUNDWATER MONITORING WELLS  
INSTALLED 10-20-00, 1-12-01, 1-21-03 AND  
1-22-03, AND 12-08-04
- MTBE METHYL TERT-BUTYL ETHER  
TPH-G TOTAL PETROLEUM HYDROCARBON - GASOLINE RANGE  
BEN BENZENE  
ND - NOT DETECTED



### CONTAMINANT CONCENTRATION MAP

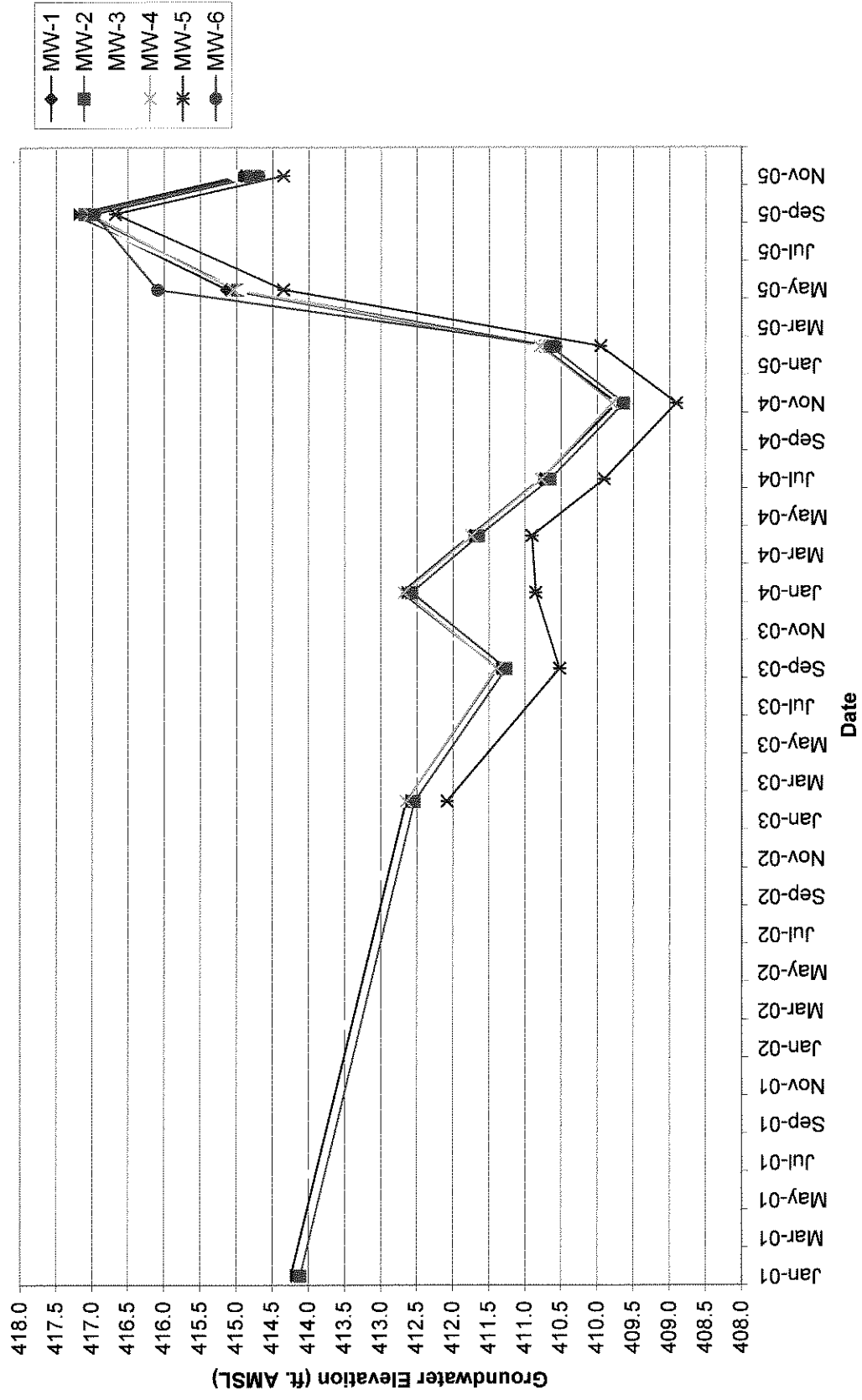
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DRAWN BY: JMC  
DATE: 01/10/06  
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SCALE: 1" = 20'

**FIGURE 4**

**Figure 5.**



## TABLES

**TABLE 1**  
**MONITORING WELL SOUNDING DATA**

Frank's Stop and Go  
610 West Olive Avenue  
Porterville, California 93257

Well Number	Date Sounded	Depth to Water (Feet)	Relative Casing-Top Elevation (Ft AMSL)	Relative Water Table (Ft AMSL)	Flow Direction @ Gradient (ft/ft)
<b>MW-1</b>	1/16/2001	30.39	444.63	414.24	N77°W @ 0.0065
MW-1	2/6/2003	31.98	444.63	412.65	N77°W@0.007
MW-1	9/9/2003	33.25	444.63	411.38	S74°W@0.013
MW-1	1/6/2004	31.92	444.63	412.71	N87°W@0.036
MW-1	4/19/2004	32.87	444.63	411.76	S75°W@0.014
MW-1	7/28/2004	33.85	444.63	410.78	S76°W@0.012
MW-1	11/17/2004	34.90	444.63	409.73	S69°W@0.012
MW-1	2/21/2005	33.85	444.63	410.78	N69°W@0.007
MW-1	5/31/2005	29.50	444.63	415.13	N88°W@0.007
MW-1	9/6/2005	27.37	444.63	417.26	NW @ 0.0049
MW-1	11/9/2005	29.70	444.63	414.93	NW @ 0.0053
<b>MW-2</b>	1/16/2001	30.89	445.00	414.11	N77°W @ 0.0065
MW-2	2/6/2003	32.47	445.00	412.53	N77°W@0.007
MW-2	9/9/2003	33.74	445.00	411.26	S74°W@0.013
MW-2	1/6/2004	32.43	445.00	412.57	N87°W@0.036
MW-2	4/19/2004	33.36	445.00	411.64	S75°W@0.014
MW-2	7/28/2004	34.35	445.00	410.65	S76°W@0.012
MW-2	11/17/2004	35.37	445.00	409.63	S69°W@0.012
MW-2	2/21/2005	34.35	445.00	410.65	N69°W@0.007
MW-2	5/31/2005	30.02	445.00	414.98	N88°W@0.007
MW-2	9/6/2005	27.90	445.00	417.10	NW @ 0.0049
MW-2	11/9/2005	30.20	445.00	414.80	NW @ 0.0053
<b>MW-3</b>	1/16/2001	30.31	444.65	414.34	N77°W @ 0.0065
MW-3	2/6/2003	31.90	444.65	412.75	N77°W@0.007
MW-3	9/9/2003	33.16	444.65	411.49	S74°W@0.013
MW-3	1/6/2004	31.85	444.65	412.80	N87°W@0.036
MW-3	4/19/2004	32.78	444.65	411.87	S75°W@0.014
MW-3	7/28/2004	33.75	444.65	410.90	S76°W@0.012
MW-3	11/17/2004	34.83	444.65	409.82	S69°W@0.012
MW-3	2/21/2005	33.82	444.65	410.83	N69°W@0.007
MW-3	5/31/2005	29.70	444.65	414.95	N88°W@0.007
MW-3	9/6/2005	27.30	444.65	417.35	NW @ 0.0049
MW-3	11/9/2005	29.58	444.65	415.07	NW @ 0.0053

**TABLE 1**  
**MONITORING WELL SOUNDING DATA**

**Frank's Stop and Go**  
**610 West Olive Avenue**  
**Porterville, California 93257**

Well Number	Date Sounded	Depth to Water (Feet)	Relative Casing-Top Elevation (Ft AMSL)	Relative Water Table (Ft AMSL)	Flow Direction @ Gradient (ft/ft)
<b>MW-4</b>	2/6/2003	32.34	444.99	412.65	N77°W@0.007
MW-4	9/9/2003	33.60	444.99	411.39	S74°W@0.013
MW-4	1/6/2004	32.31	444.99	412.68	N87°W@0.036
MW-4	4/19/2004	33.25	444.99	411.74	S75°W@0.014
MW-4	7/28/2004	34.22	444.99	410.77	S76°W@0.012
MW-4	11/17/2004	35.20	444.99	409.79	S69°W@0.012
MW-4	2/21/2005	34.20	444.99	410.79	N69°W@0.007
MW-4	5/31/2005	29.95	444.99	415.04	N88°W@0.007
MW-4	9/6/2005	27.96	444.99	417.03	NW @ 0.0049
MW-4	11/9/2005	30.30	444.99	414.69	NW @ 0.0053
<b>MW-5</b>	2/6/2003	32.32	444.40	412.08	N77°W@0.007
MW-5	9/9/2003	33.88	444.40	410.52	S74°W@0.013
MW-5	1/6/2004	33.55	444.40	410.85	N87°W@0.036
MW-5	4/19/2004	33.50	444.40	410.90	S75°W@0.014
MW-5	7/28/2004	34.50	444.40	409.90	S76°W@0.012
MW-5	11/17/2004	35.50	444.40	408.90	S69°W@0.012
MW-5	2/21/2005	34.45	444.40	409.95	N69°W@0.007
MW-5	5/31/2005	30.05	444.40	414.35	N88°W@0.007
MW-5	9/6/2005	27.72	444.40	416.68	NW @ 0.0049
MW-5	11/9/2005	30.05	444.40	414.35	NW @ 0.0053
<b>MW-6</b>	2/21/2005	33.72	444.29	410.57	N69°W@0.007
MW-6	5/31/2005	28.20	444.29	416.09	N88°W@0.007
MW-6	9/6/2005	27.32	444.29	416.97	NW @ 0.0049
MW-6	11/9/2005	29.60	444.29	414.69	NW @ 0.0053

MW-1 was drilled and completed on October 20, 2000.

MW-2 and MW-3 were drilled and completed on January 12, 2001.

MW-4 was drilled and completed on January 21, 2003.

MW-5 was drilled and completed on January 22, 2003.

MW-6 was drilled and completed on December 8, 2004.

**TABLE 2**  
**GROUNDWATER SAMPLE**  
**ANALYTICAL RESULTS**

**Frank's Stop and Go**  
**610 West Olive Avenue**  
**Porterville, California 93257**

Well Number	Sampling Date	TPH-g EPA 5030 µg/L PCL 50.0	MTBE EPA 8020 µg/L PCL 0.5	Benzene EPA 8020 µg/L PCL 0.5	Toluene EPA 8020 µg/L PCL 0.5	Ethylbenzene EPA 8020 µg/L PCL 0.5	Xylenes EPA 8020 µg/L PCL 0.5
<b>MW-1</b>	1/16/01	19000.0	ND	ND	ND	300.0	970.0
MW-1	2/6/03	79.0	ND	ND	ND	1.2	2.8
MW-1	9/9/03	410.0	ND	ND	ND	2.2	9.9
MW-1	1/6/04	ND	ND	ND	ND	ND	ND
MW-1	4/19/04	ND	ND	ND	1.3	0.6	3.8
MW-1	7/28/04	ND	ND	ND	ND	ND	ND
MW-1	11/17/04	ND	ND	ND	ND	ND	ND
MW-1	2/21/05	ND	ND	ND	ND	ND	ND
MW-1	5/31/05	ND	ND	ND	ND	ND	ND
MW-1	9/6/05	ND	ND	ND	ND	ND	ND
MW-1	11/9/05	ND	ND	ND	0.53	ND	2.1
MW-1	11/17/05	ND	ND	ND	ND	ND	ND
<b>MW-2</b>	1/16/01	ND	ND	ND	3.3	ND	2.9
MW-2	2/6/03	ND	ND	ND	ND	ND	ND
MW-2	9/9/03	ND	ND	ND	ND	ND	ND
MW-2	1/6/04	ND	ND	ND	ND	ND	0.8
MW-2	4/19/04	ND	ND	ND	0.9	ND	3.0
MW-2	7/28/04	ND	ND	ND	ND	ND	ND
MW-2	11/17/04	ND	ND	ND	ND	ND	ND
MW-2	2/21/05	ND	ND	ND	ND	ND	ND
MW-2	5/31/05	ND	ND	ND	ND	ND	ND
MW-2	9/6/05	ND	ND	ND	ND	ND	ND
MW-2	11/9/05	ND	ND	ND	0.52	ND	1.9
MW-2	11/17/05	ND	ND	ND	ND	ND	ND
<b>MW-3</b>	1/16/01	ND	ND	ND	ND	ND	ND
MW-3	2/6/03	ND	ND	ND	ND	ND	ND
MW-3	9/9/03	ND	ND	ND	ND	ND	ND
MW-3	1/6/04	ND	ND	ND	ND	ND	ND
MW-3	4/19/04	ND	ND	ND	1.7	0.8	4.7
MW-3	7/28/04	ND	ND	ND	ND	ND	ND
MW-3	11/17/04	ND	ND	ND	ND	ND	ND
MW-3	2/21/05	ND	ND	ND	ND	ND	ND
MW-3	5/31/05	ND	ND	ND	ND	ND	ND
MW-3	9/6/05	ND	ND	ND	ND	ND	ND
MW-3	11/9/05	62	ND	ND	0.97	0.55	4.0
MW-3	11/17/05	ND	ND	ND	ND	ND	ND

**TABLE 2**  
**GROUNDWATER SAMPLE**  
**ANALYTICAL RESULTS**

**Frank's Stop and Go**  
**610 West Olive Avenue**  
**Porterville, California 93257**

Well Number	Sampling Date	TPH-g EPA 5030 µg/L PCL 50.0	MTBE EPA 8020 µg/L PCL 0.5	Benzene EPA 8020 µg/L PCL 0.5	Toluene EPA 8020 µg/L PCL 0.5	Ethylbenzene EPA 8020 µg/L PCL 0.5	Xylenes EPA 8020 µg/L PCL 0.5
<b>MW-4</b>	2/4/03	ND	ND	ND	ND	ND	ND
MW-4	9/9/2003	ND	ND	ND	ND	ND	ND
MW-4	1/6/04	ND	ND	ND	ND	ND	ND
MW-4	4/19/04	ND	ND	ND	0.7	ND	2.6
MW-4	7/28/04	ND	ND	ND	ND	ND	ND
MW-4	11/17/04	ND	ND	ND	ND	ND	ND
MW-4	2/21/05	ND	ND	ND	ND	ND	ND
MW-4	5/31/05	ND	ND	ND	ND	ND	ND
MW-4	9/6/05	ND	ND	ND	ND	ND	ND
MW-4	11/9/05	ND	ND	ND	ND	ND	1.1
MW-4	11/17/05	ND	ND	ND	ND	ND	ND
<b>MW-5</b>	2/4/03	ND	ND	ND	ND	ND	ND
MW-5	9/9/03	ND	ND	ND	ND	ND	ND
MW-5	1/6/04	ND	ND	ND	ND	ND	ND
MW-5	4/19/04	ND	ND	ND	0.8	ND	2.9
MW-5	7/28/04	ND	ND	ND	ND	ND	ND
MW-5	11/17/04	ND	ND	ND	ND	ND	ND
MW-5	2/21/05	ND	ND	ND	ND	ND	ND
MW-5	5/31/05	ND	ND	ND	ND	ND	ND
MW-5	9/6/05	ND	ND	ND	ND	ND	ND
MW-5	11/9/05	ND	ND	ND	ND	ND	1.0
MW-5	11/17/05	ND	ND	ND	ND	ND	ND
<b>MW-6</b>	2/21/05	ND	ND	ND	ND	ND	ND
MW-6	5/31/05	ND	ND	ND	ND	ND	ND
MW-6	9/6/05	ND	ND	ND	ND	ND	ND
MW-6	11/9/05	ND	ND	ND	ND	ND	1.1
MW-6	11/17/05	ND	ND	ND	ND	ND	ND

ND Not detected or below the Practical Quantification Limit (PCL) listed for each constituent.  
MCLs for EPA 8020 in µg/L: benzene=1; toluene=150; ethylbenzene=700; total xylenes=1750.  
CAL-EPA February 1991 interim action level for MTBE: 35 µg/L.

**Porterville, California 93257**

<sup>1</sup> ft., TBM = Elevation in feet measured relative to a mean sea level  
<sup>2</sup> ft., BTOC = Feet below top of casing  
<sup>3</sup> NI = No information readily available

**TABLE 4**  
**GROUNDWATER SAMPLE**  
**ANALYTICAL RESULTS**  
**FUEL OXYGENATES AND VOLATILE HALOCARBONS**

Frank's Stop and Go  
610 West Olive Avenue  
Porterville, California 93257

Well Number	Sampling Date	MTBE	DIPE	ETBE	TAME	TBA	1,2-DCA	EDB
		EPA 8260 µg/L	EPA 8260 µg/L	EPA 8260 µg/L	EPA 8260 µg/L	EPA 8260 µg/L	EPA 8260 µg/L	EPA 8260 µg/L
		PQL 0.5	PQL 0.5	PQL 0.5	PQL 0.5	PQL 20	PQL 0.5	PQL 0.5
<b>MW-1</b>	11/9/2005	ND	ND	ND	ND	ND	ND	ND
<b>MW-2</b>	11/9/2005	ND	ND	ND	ND	ND	ND	ND
<b>MW-3</b>	11/9/2005	ND	ND	ND	ND	ND	ND	ND
<b>MW-4</b>	11/9/2005	ND	ND	ND	ND	ND	ND	ND
<b>MW-5</b>	11/9/2005	ND	ND	ND	ND	ND	ND	ND
<b>MW-6</b>	11/9/2005	ND	ND	ND	ND	ND	ND	ND

NOTES:

ND = Not detected or below the Practical Quantitation Limit (PQL) listed for each constituent.

MTBE = Methyl tert-Butyl Ether

DIPE = Di-isopropyl Ether

ETBE = Ethyl tert-Butyl Ether

TAME = tert-Amyl Methyl Ether

TBA = tert-Butanol

1,2-DCA = 1,2-Dichloroethane

EDB = Ethylene Dibromide

PQL = Practical Quantitation Limit

**APPENDIX A**  
**FIELD SAMPLING DATA SHEETS**  
**CHAIN-OF-CUSTODY RECORD**  
**CERTIFIED ANALYTICAL REPORTS**

**PROJECT:** Frank's Stop and Go  
610 West Olive Avenue  
Porterville, California

File No. 4451-99  
Date 11/9/05

### **GROUNDWATER WELL MEASUREMENTS**

<b>DATE</b>	<b>TIME</b>	<b>WELL NO.</b>	<b>DEPTH TO WATER BELOW TOP OF CASING</b>
11/9/05	12:15 p.m.	MW-1	29.70
11/9/05	12:30 p.m.	MW-2	30.20
11/9/05	12:45 p.m.	MW-3	29.58
11/9/05	1:00 p.m.	MW-4	30.30
11/9/05	1:15 p.m.	MW-5	30.05
11/9/05	1:30 p.m.	MW-6	29.60

# CONSOLIDATED TESTING LABORATORIES, INC.

Soils and Materials Testing

Geotechnical and Environmental Drilling

Field Inspection

JOB NO.: 4451

DATE: 11-9-05

## MONITORING WELL PURGING AND DEVELOPING RECORD

PROJECT LOCATION: FRANKS stop & Go

SAMPLER NAME: POWELL

SAMPLE LOCATION		mw-1	mw-2	mw-3	mw-4	mw-5
REMOVE CAPS ON ALL WELLS PRIOR TO PURGING	SCREEN INTERVAL (Top/Bottom) (feet)					
	CASING DIAMETER (In)	2"	2"	2"	2"	2"
	DEPTH TO FREE PRODUCT	0	0	0	0	0
	TOTAL DEPTH OF WELL (feet)	43.36	37.75	37.76	39.26	38.85
	DEPTH TO WATER (from top of well casing)	29.70	30.20	29.58	30.30	30.05
	FACTOR-2"=X.163 - 4"=X.653	13.66	7.55	8.18	8.96	8.80
	VOLUME OF WATER IN WELL (gallons)	2.22	1.23	1.33	1.46	1.43
	REMOVE SMALL SAMPLE					
	TIME AND DATE WATER LEVEL TAKEN	12:15/11-9-05	12:30/11-9-05	12:45/11-9-05	1:00/11-9-05	1:15/11-9-05
	TURBIDITY	cloudy	clear	clear	clear	clear
	TEMPERATURE (°F) / (°C)	121.3	121.9	121.4	121.3	120.5
	pH READING	7.47	7.46	7.67	7.28	7.29
	ELECTRICAL CONDUCTIVITY	387	484	523	481	490
	THICKNESS OF STANDING PRODUCT (feet)	0	0	0	0	0
	PETROLEUM SHEEN	0	0	0	0	0
PETROLEUM ODOR	0	0	0	0	0	
FREE PRODUCT BAILED (gallon)	0	0	0	0	0	
SAMPLE	TIME AND DATE SAMPLED	3:15/11-9-05	2:45/11-9-05	2:00/11-9-05	4:00/11-9-05	4:30/11-9-05
	DEPTH TO WATER (from top of well casing) (feet)	29.85	32.26	29.62	32.11	31.05
	FOUR VOLUMES OF WATER REMOVED (gallons)	8.88	4.92	5.32	5.84	5.72
	TEMPERATURE (°F) / (°C)	121.2	121.6	121.7	121.3	121.0
	pH READING	7.22	7.40	7.60	7.15	7.20
	ELECTRICAL CONDUCTIVITY	382	490	540	478	450
NOTES:						BARRELS ON SITE
						FULL      EMPTY
ARRIVAL						3      1
DEPARTURE						4
DELIVERED						

# CONSOLIDATED TESTING LABORATORIES, INC.

Soils and Materials Testing

Geotechnical and Environmental Drilling

Field Inspection

JOB NO.: 4451

DATE: 11-9-05

## MONITORING WELL PURGING AND DEVELOPING RECORD

PROJECT LOCATION: FRANKS STOP & GO  
SAMPLER NAME: LEONARD

REMOVE CAPS ON ALL WELLS PRIOR TO PURGING	SAMPLE LOCATION	mw-6				
	SCREEN INTERVAL (Top/Bottom) (feet)					
	CASING DIAMETER (in)	2"				
	DEPTH TO FREE PRODUCT	0				
	TOTAL DEPTH OF WELL (feet)	45.67				
	DEPTH TO WATER (from top of well casing)	29.60				
	FACTOR-2"=X.163 - 4"=X.653	16.07				
	VOLUME OF WATER IN WELL (gallons)	2.62				
	REMOVE SMALL SAMPLE					
	TIME AND DATE WATER LEVEL TAKEN	1:30 / 11-9-05	1	1	1	1
	TURBIDITY	cloudy				
	TEMPERATURE (°F) / (°C)	120.8	1	1	1	1
	pH READING	7.20				
	ELECTRICAL CONDUCTIVITY	470				
	THICKNESS OF STANDING PRODUCT (feet)	0				
PETROLEUM SHEEN	0					
PETROLEUM ODOR	0					
FREE PRODUCT BAILED (gallon)	0					
SAMPLE	TIME AND DATE SAMPLED	3:45 / 11-9-05	1	1	1	1
	DEPTH TO WATER (from top of well casing) (feet)	30.47				
	FOUR VOLUMES OF WATER REMOVED (gallons)	6.86				
	TEMPERATURE (°F) / (°C)	121.0	1	1	1	1
	pH READING	7.13				
	ELECTRICAL CONDUCTIVITY	510				
NOTES:		BARRELS ON SITE				
		FULL		EMPTY		
		ARRIVAL	3	1		
		DEPARTURE	4			
		DELIVERED				



# CASTLE ANALYTICAL LABORATORY

Environmental Testing Services  
Certificate #2480

2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930  
Fax: (209) 384-1507

Consolidated Testing Laboratories, Inc  
603 E. Worth Ave.  
Porterville, CA 93257  
Attn: David Harris

Client Project ID: 4451-99  
Client Project Name: Frank's Stop and Go  
Reference Number: 8701  
Sample Description: Water  
Sample Prep/Analysis Method: EPA 5030/8015, 8020  
Lab Numbers: 8701-1W, 2W, 3W, 4W, 5W

Sampled: 11-09-05  
Received: 11-10-05  
Extracted: 11-10-05  
Analyzed: 11-10-05  
Reported: 11-22-05

## TOTAL PETROLEUM HYDROCARBONS - GASOLINE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT	SAMPLE ID MW-1 (µg/L)	SAMPLE ID MW-2 (µg/L)	SAMPLE ID MW-3 (µg/L)	SAMPLE ID MW-4 (µg/L)	SAMPLE ID MW-5 (µg/L)
	µg/L					
MTBE	0.50	ND	ND	ND	ND	ND
BENZENE	0.50	ND	ND	ND	ND	ND
TOLUENE	0.50	0.53	0.52	0.97	ND	ND
ETHYLBENZENE	0.50	ND	ND	0.55	ND	ND
TOTAL XYLENES	0.50	2.1	1.9	4.0	1.1	1.0
GASOLINE RANGE HYDROCARBONS	50	ND	ND	62	ND	ND
Report Limit Multiplication Factor:		1	1	1	1	1

Surrogate % Recovery:

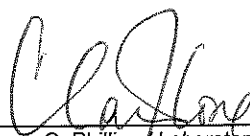
FID: 102% / PID: 108%    FID: 97.0% / PID: 101%    FID: 91.2% / PID: 98.6%    FID: 95.7% / PID: 98.6%    FID: 94.5% / PID: 98.3%

Instrument ID:

VAR-GC1    VAR-GC1    VAR-GC1    VAR-GC1    VAR-GC1

Analytes reported as ND were not detected or below the Practical Quantitation Limit  
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

APPROVED BY:

  
James C. Phillips / Laboratory Director or  
Clari J. Cone / Laboratory Manager

# CASTLE ANALYTICAL LABORATORY

Environmental Testing Services  
Certificate #2480

2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930  
Fax: (209) 384-1507

Consolidated Testing Laboratories, Inc  
603 E. Worth Ave.  
Porterville, CA 93257  
Attn: David Harris

Client Project ID: 4451-99  
Client Project Name: Frank's Stop and Go  
Reference Number: 8701  
Sample Description: Water  
Sample Prep/Analysis Method: EPA 5030/8015, 8020  
Lab Numbers: 8701-6W, 7W

Sampled: 11-09-05  
Received: 11-10-05  
Extracted: 11-10-05  
Analyzed: 11-10-05  
Reported: 11-22-05

## TOTAL PETROLEUM HYDROCARBONS - GASOLINE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT	SAMPLE ID	SAMPLE ID
		MW-6 (µg/L)	Travel Blank (µg/L)
MTBE	0.50	ND	ND
BENZENE	0.50	ND	ND
TOLUENE	0.50	ND	ND
ETHYLBENZENE	0.50	ND	ND
TOTAL XYLENES	0.50	1.1	ND
GASOLINE RANGE HYDROCARBONS	50	ND	ND
Report Limit Multiplication Factor:		1	1

Surrogate % Recovery:

FID: 97.7% / PID: 102%    FID: 98.2% / PID: 103%

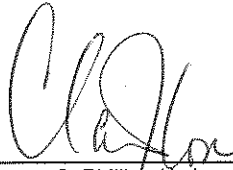
Instrument ID:

VAR-GC1

VAR-GC1

Analytes reported as ND were not detected or below the Practical Quantitation Limit  
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

APPROVED BY:

  
James C. Phillips / Laboratory Director or  
Clari J. Cone / Laboratory Manager

# CASTLE ANALYTICAL LABORATORY

Environmental Testing Services  
Certificate # 2480

2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930  
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Consolidated Testing Laboratories, Inc  
603 E. Worth Ave.  
Porterville, CA 93257  
Attn: David Harris

Client Project ID: 4451-99  
Client Project Name: Frank's Stop and Go  
Reference Number: 8701  
Sample Description: Water  
Analyst: Jim Phillips


Method: EPA 5030/8015M,8020  
Instrument ID: Var-GC1  
Extracted: 11-10-05  
Analyzed: 11-10-05  
Reported: 11-22-05

## QUALITY CONTROL DATA REPORT

ANALYTE	Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Total Xylenes
Spike Concentration:	110	2.16	1.34	7.58	1.82	8.88
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LCS Batch #:	VW-N105	VW-N105	VW-N105	VW-N105	VW-N105	VW-N105
LCS % Recovery:	95.7%	75.4%	84.5%	98.4%	101%	102%
Surrogate Recovery:	98.2%	99.9%	99.9%	99.9%	99.9%	99.9%
Control Limits:	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %
MS/MSD Batch #:	VW-N105	VW-N105	VW-N105	VW-N105	VW-N105	VW-N105
Spike Concentration:	110	2.16	1.34	7.58	1.82	8.88
MS % Recovery:	96.7%	83.2%	88.2%	101%	110%	108%
Surrogate Recovery:	105%	105%	105%	105%	105%	105%
MSD % Recovery:	102%	78.7%	85.4%	96.0%	102%	99.7%
Surrogate Recovery:	98.8%	98.3%	98.3%	98.3%	98.3%	98.3%
Relative % Difference:	4.78%	5.46%	3.20%	4.49%	6.96%	6.69%
Method Blank :	ND	ND	ND	ND	ND	ND
Surrogate Recovery:	94.6%	98.0%	98.0%	98.0%	98.0%	98.0%

The LCS (Laboratory Check Sample) is a control sample of known, interferent free matrix that is fortified with representative analytes and analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery is used for validation of sample batch results. Due to matrix effects, the QC limits and recoveries for MS/MSD's are advisory only and are not used to accept or reject batch results.

APPROVED BY:

  
James C. Phillips / Laboratory Director or  
Clari J. Cone / Laboratory Manager

# CASTLE ANALYTICAL LABORATORY

Environmental Testing Services  
Certificate #2480

2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930  
Fax: (209) 384-1507

Consolidated Testing Laboratories, Inc  
603 E. Worth Ave.  
Porterville, CA 93257  
Attn: David Harris

Client Project ID: 4451-99  
Client Project Name: Frank's Stop and Go  
Lab Reference Number: 8701  
Sample Description: Water  
Sample Prep/Analysis Method: EPA 5030/8260  
Lab Numbers: 8701-1W, 2W, 3W, 4W, 5W

Sampled: 11-09-05  
Received: 11-10-05  
Extracted: 11-11-05  
Analyzed: 11-11-05  
Reported: 11-22-05

## GASOLINE ADDITIVES BY EPA METHOD 8260 GC/MS

ANALYTE	REPORTING LIMIT (µg/L)	SAMPLE ID MW-1 (µg/L)	SAMPLE ID MW-2 (µg/L)	SAMPLE ID MW-3 (µg/L)	SAMPLE ID MW-4 (µg/L)	SAMPLE ID MW-5 (µg/L)
<b>FUEL OXYGENATES</b>						
Methyl tert-Butyl Ether (MTBE)	0.50	ND	ND	ND	ND	ND
Di-isopropyl Ether (DIPE)	0.50	ND	ND	ND	ND	ND
Ethyl tert-Butyl Ether (ETBE)	0.50	ND	ND	ND	ND	ND
tert-Amyl Methyl Ether (TAME)	0.50	ND	ND	ND	ND	ND
tert-Butanol (TBA)	20	ND	ND	ND	ND	ND
<b>VOLATILE HALOCARBONS</b>						
1,2-Dichloroethane (1,2-DCA)	0.50	ND	ND	ND	ND	ND
Ethylene Dibromide (EDB)	0.50	ND	ND	ND	ND	ND
Report Limit Multiplication Factor:		1	1	1	1	1

### Surrogate Recoveries

1,2-Dichloroethane-d4	101%	104%	99.5%	113%	105%
Toluene-d8	97.8%	106%	92.4%	109%	97.4%

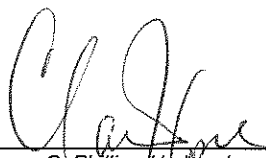
Instrument ID: HP 5972 MS

Analytes reported as ND were not detected or below the Practical Quantitation Limit

Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

(µg/L) = micrograms per liter or parts per billion (ppb)

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Porterville, CA 93257  
Attn: David Harris

Client Project ID: 4451-99  
Client Project Name: Frank's Stop and Go  
Lab Reference Number: 8701  
Sample Description: Water  
Sample Prep/Analysis Method: EPA 5030/8260  
Lab Numbers: 8701-6W

Sampled: 11-09-05  
Received: 11-10-05  
Extracted: 11-11-05  
Analyzed: 11-11-05  
Reported: 11-22-05

## GASOLINE ADDITIVES BY EPA METHOD 8260 GC/MS

ANALYTE	REPORTING LIMIT (µg/L)	SAMPLE ID MW-6 (µg/L)
<b><u>FUEL OXYGENATES</u></b>		
Methyl tert-Butyl Ether (MTBE)	0.50	ND
Di-isopropyl Ether (DIPE)	0.50	ND
Ethyl tert-Butyl Ether (ETBE)	0.50	ND
tert-Amyl Methyl Ether (TAME)	0.50	ND
tert-Butanol (TBA)	20	ND
<b><u>VOLATILE HALOCARBONS</u></b>		
1,2-Dichloroethane (1,2-DCA)	0.50	ND
Ethylene Dibromide (EDB)	0.50	ND
Report Limit Multiplication Factor:		1

### Surrogate Recoveries

1,2-Dichloroethane-d4	112%
Toluene-d8	106%

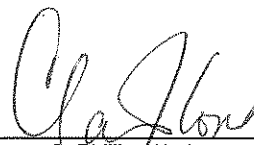
Instrument ID: HP 5972 MS

Analytes reported as ND were not detected or below the Practical Quantitation Limit

Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

(µg/L) = micrograms per liter or parts per billion (ppb)

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Consolidated Testing Laboratories, Inc  
603 E. Worth Ave.  
Porterville, CA 93257  
Attn: David Harris

Client Project ID: 4451-99  
Client Project Name: Frank's Stop and Go  
Lab Reference Number: 8701  
Sample Description: Water  
Analyst: Scott Foster

Method: EPA 5030/8260  
Instrument ID: HP 5972 MS  
Prepared: 11-11-05  
Analyzed: 11-11-05  
Reported: 11-22-05

## QUALITY CONTROL DATA REPORT

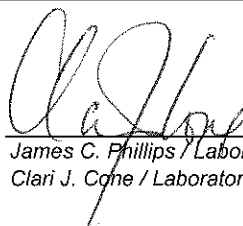
SPIKE ID: VWMS-N115

	Reporting Limit µg/L	BLANK Result µg/L	Spiking Level µg/L	Control Spike %R	%R Limits
<b>COMPOUNDS</b>					
t-Butyl Alcohol (t-BA)	20	ND	75.0	97.5%	57.6-163
Methyl t-butyl ether (MTBE)	0.50	ND	2.50	110%	64.7-134
Diisopropyl ether (DIPE)	0.50	ND	2.50	105%	58.2-135
Ethyl t-Butyl ether (ETBE)	0.50	ND	2.50	109%	65.0-132
t-Amyl methyl ether (TAME)	0.50	ND	2.50	97.6%	61.0-139
1,2-Dichloroethane (1,2-DCA)	0.50	ND	2.50	89.2%	70.1-145
Ethylene dibromide (EDB)	0.50	ND	2.50	109%	55.0-156
Surrogates:					
1,2-Dichloroethane-d4	1.00	112%	10.0	102%	80.0-118
Toluene-d8	1.00	103%	10.0	99.3%	74.1-129

	Spiking Level µg/L	MATRIX SPIKE %R	MATRIX SPIKE DUP %R	%R Limits	%RPD
<b>COMPOUNDS</b>					
t-Butyl Alcohol (t-BA)	75.0	103%	95.8%	39.7-178	7.37%
Methyl t-butyl ether (MTBE)	2.50	113%	103%	55.3-144	9.24%
Diisopropyl ether (DIPE)	2.50	104%	96.8%	54.9-135	7.17%
Ethyl t-Butyl ether (ETBE)	2.50	112%	100%	54.0-136	10.6%
t-Amyl methyl ether (TAME)	2.50	106%	102%	39.6-131	3.08%
1,2-Dichloroethane (1,2-DCA)	2.50	97.2%	92.0%	73.9-147	5.50%
Ethylene dibromide (EDB)	2.50	105%	106%	63.3-141	0.760%
Surrogate:					
1,2-Dichloroethane-d4	10.0	101%	106%	68.9-128	4.92%
Toluene-d8	10.0	101%	94.9%	68.0-128	6.13%

The LCS (Laboratory Check Sample) is a control sample of known, interferent free matrix that is fortified with representative analytes and analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery is used for validation of sample batch results. Due to matrix effects, the QC limits and recoveries for MS/MSD's are advisory only and are not used to accept or reject batch results.

APPROVED BY:



James C. Phillips / Laboratory Director or  
Clari J. Cone / Laboratory Manager



# CHAIN OF CUSTODY RECORD AND ANALYSIS REPORT

## CUSTODY RECORD

Soils &amp; Materials Testing   Geotechnical &amp; Environmental Drilling   Field Testing

Project Manager

**David Harris**  
Project manager  
Leonard Lemons  
Sample Manager (T.M.)

Project Address  
610 W. Olive Avenue, Porterville, CA

Project Number	Project Name
----------------	--------------

**4451-99**  
**Frank's Stop and Go**

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Signature

James Cameron

[illegible]

SPECIAL HANDLING		SPECIAL DETECTION
<input type="checkbox"/> 24 HOURS <input type="checkbox"/> EXPEDITED 48 HOURS <input type="checkbox"/> SEVEN DAY <input type="checkbox"/> FAX <input type="checkbox"/> OTHER _____ (#) OF BUSINESS DAYS	<input type="checkbox"/> QA/QC <input type="checkbox"/> CLP Level <input type="checkbox"/> Blue Level	

[illegible]

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Consolidated Testing Laboratories, Inc  
603 E. Worth Ave.  
Porterville, CA 93257  
Attn: David Harris

Client Project ID: 4451-99  
Client Project Name: Frank's Stop and Go  
Reference Number: 8723  
Sample Description: Water  
Sample Prep/Analysis Method: EPA 5030/8015, 8020  
Lab Numbers: 8723-1W, 2W, 3W, 4W, 5W

Sampled: 11-17-05  
Received: 11-18-05  
Extracted: 11-21-02  
Analyzed: 11-21-05  
Reported: 11-23-05

## TOTAL PETROLEUM HYDROCARBONS - GASOLINE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT	SAMPLE ID MW-6 (µg/L)	SAMPLE ID MW-3 (µg/L)	SAMPLE ID MW-2 (µg/L)	SAMPLE ID MW-1 (µg/L)	SAMPLE ID MW-5 (µg/L)
	µg/L					
MTBE	0.50	ND	ND	ND	ND	ND
BENZENE	0.50	ND	ND	ND	ND	ND
TOLUENE	0.50	ND	ND	ND	ND	ND
ETHYLBENZENE	0.50	ND	ND	ND	ND	ND
TOTAL XYLENES	0.50	ND	ND	ND	ND	ND
GASOLINE RANGE HYDROCARBONS	50	ND	ND	ND	ND	ND
Report Limit Multiplication Factor:		1	1	1	1	1

Surrogate % Recovery:

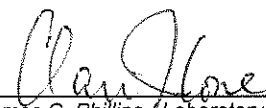
FID: 97.2% / PID: 107%    FID: 96.5% / PID: 105%    FID: 95.1% / PID: 101%    FID: 98.6% / PID: 106%    FID: 96.4% / PID: 102%

Instrument ID:

VAR-GC1    VAR-GC1    VAR-GC1    VAR-GC1    VAR-GC1

Analytes reported as ND were not detected or below the Practical Quantitation Limit  
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

APPROVED BY:

  
James C. Phillips / Laboratory Director or  
Clari J. Cone / Laboratory Manager

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Attn: David Harris

Client Project ID: 4451-99  
Client Project Name: Frank's Stop and Go  
Reference Number: 8723  
Sample Description: Water  
Sample Prep/Analysis Method: EPA 5030/8015, 8020  
Lab Numbers: 8723-6W

Sampled: 11-17-05  
Received: 11-18-05  
Extracted: 11-21-02  
Analyzed: 11-21-05  
Reported: 11-23-05

## TOTAL PETROLEUM HYDROCARBONS - GASOLINE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT	SAMPLE ID
	µg/L	MW-4 (µg/L)
MTBE	0.50	ND
BENZENE	0.50	ND
TOLUENE	0.50	ND
ETHYLBENZENE	0.50	ND
TOTAL XYLENES	0.50	ND
GASOLINE RANGE HYDROCARBONS	50	ND

Report Limit Multiplication Factor: 1

Surrogate % Recovery:

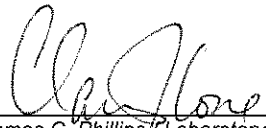
FID: 103% / PID: 107%

Instrument ID:

VAR-GC1

Analytes reported as ND were not detected or below the Practical Quantitation Limit  
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

APPROVED BY:

  
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Attn: David Harris

Client Project ID: 4451-99  
Client Project Name: Frank's Stop and Go  
Reference Number: 8723  
Sample Description: Water  
Analyst: Jim Phillips

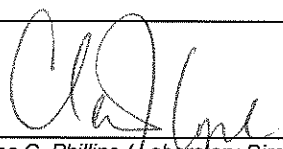
Method: EPA 5030/8015M,8020  
Instrument ID: Var-GC1  
Extracted: 11-21-02  
Analyzed: 11-21-05  
Reported: 11-23-05

## QUALITY CONTROL DATA REPORT

ANALYTE	Gasoline	MTBE	Benzene	Toluene	Ethyl Benzene	Total Xylenes
Spike Concentration:	110	2.16	1.34	7.58	1.82	8.88
Units:	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LCS Batch #:	VW-N215	VW-N215	VW-N215	VW-N215	VW-N215	VW-N215
LCS % Recovery:	92.0%	66.4%	77.8%	105%	107%	114%
Surrogate Recovery:	101%	112%	112%	112%	112%	112%
Control Limits:	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %	70-130 %
MS/MSD Batch #:	VW-N215	VW-N215	VW-N215	VW-N215	VW-N215	VW-N215
Spike Concentration:	110	2.16	1.34	7.58	1.82	8.88
MS % Recovery:	91.2%	93.1%	92.1%	104%	109%	108%
Surrogate Recovery:	109%	109%	109%	109%	109%	109%
MSD % Recovery:	93.0%	88.0%	84.6%	94.3%	107%	106%
Surrogate Recovery:	106%	106%	106%	106%	106%	106%
Relative % Difference:	1.91%	5.41%	8.39%	9.65%	1.59%	2.11%
Method Blank :	ND	ND	ND	ND	ND	ND
Surrogate Recovery:	102%	105%	105%	105%	105%	105%

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